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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,188	06/30/2005	Tatsuro Uchida	03500.103081	4934

5514 7590 05/04/2007  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER
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KIANNI, KAVEH C

ART UNIT	PAPER NUMBER
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2883

MAIL DATE	DELIVERY MODE
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05/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,188	<b>Applicant(s)</b> UCHIDA, TATSURO	
	<b>Examiner</b> Kianni C. Kaveh	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4 is/are pending in the application.  
     4a) Of the above claim(s) 6-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

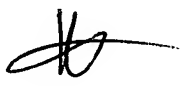
#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.



#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

*Applicant's election with traverse of claims in response/amendment submitted on 2/13/07 is acknowledged. The traversal is on the ground(s) that search and the examination of the entire application can be made without serious burden. This is not found persuasive because as stated in the restriction requirement each of the group inventions and II are directed to an invention that differ in limitations and each directed to an invention that requires a different search than that of the other group inventions. The requirement is still deemed proper and is therefore made FINAL.*

### **Claim Rejections - 35 USC § 102**

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by Ouchi (EP 1286194 A2; equivalently/analogously in US 20030039455 A1 and US 6829398 B2 as usc 102(e) references).

Ouchi teaches a light emitting element (shown in at least fig. 2) a light emitting element 5 and a substrate 1 mounting the light emitting element thereon and having an optical path transforming structure 3,4, wherein each of the light emitting element and the substrate comprises a semiconductor body having a surface (see fig. 2 and see parag. 0009 and 0068 and 0071; wherein silicon or Si is of a semiconductor material ), the surface of the light emitting element and the surface of the substrate being attached to each other (shown in fig. 2),

and wherein the optical path transforming structure is **capable** of changing a light proceeding direction in order to couple light from the light emitting element with a light receiving element (this limitation is not given patentable weight because of the word capable that may or not be able to perform it; however, such limitation is clearly taught by Ouchi shown in fig. 2).

Ouchi further teaches wherein said substrate is made of semiconductor body that does not absorb light being propagated from the light emitting element (this is a negative limitation in which not given patentable weight, nevertheless, the laser with its substrate being of semiconductor inherently has such property); a growth substrate of a semiconductor layer for forming said optical element (see parag. 0071); wherein said growth substrate is formed by using a compound semiconductor (see 0071).

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goosen et al. (US 5786925).

Goosen teaches an optical device (shown in at least fig. 5) comprising a light emitting element (see at least fig. 5, item 48);

and a substrate 46 mounting the light emitting element thereon and having an optical path structure 42,40, wherein each of the light emitting element and the substrate comprises a semiconductor body having a surface (see col. 2, lines 38-47), the surface of the light emitting element and the surface of the substrate being attached to each other (shown in fig. 5), and wherein the optical path transforming structure is **capable** of changing a light proceeding direction in order to couple light from the light emitting element with a light receiving element (this limitation is not given patentable weight because of the word capable that may or may not be able to perform it; however, such limitation is clearly taught shown in fig. 5).

However, Goosen does not explicitly state that the above reflective structure is 'transforming' structure and that wherein said substrate is made of a material that does not absorb light being propagated from said optical element or to said optical element. This is a negative limitation in which not given patentable weight, nevertheless, Goosen states that light may be absorptive or reflective depending on design choice/structure (see col. 5, line 49-col. 6, line 14). Thus, it is obvious/well-known to those of ordinary skill in the art when the invention was made that the reflective structure is a light path transforming structure and that would have been obvious to choose as matter of design structure as suggested by Goosen a non-absorptive substrate layer, since such device would provide formation of angled surfaces in a substrate which alter the path of optical signals (see field of the invention, col. 1, 2<sup>nd</sup> parag.)/

Goosen further teaches ; wherein said substrate is a growth substrate of a semiconductor layer for forming said optical element (see col. 5, 3<sup>rd</sup> parag.); wherein said growth substrate is formed by using a compound semiconductor (see col. 5 3<sup>rd</sup> parag.).

***Response to Arguments and Amendment***

Applicant's argument filed on 2/13/07 have been fully considered but they are not persuasive.

Applicant alleges (page 4, 3<sup>rd</sup> parag.) that neither Goosen nor Ouchi teach the newly inserted limitations in claim 1 and that there is no motivation for obviousness. The Examiner responds that the newly inserted limitations are substantially similar to that of limitations in the claims deleted by the Applicant which were already rejected by the prior art of the record, and as stated above, and further as stated above clearly motivation statements are cited thereon.

***THIS ACTION IS MADE FINAL***

This action in response to applicant's amendment made FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- This application contains claims 6-16 drawn to an invention nonelected with traverse in Paper No. 5. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kianni C. Kaveh whose telephone number is 571-272-2417. The examiner can normally be reached on 9:30-19:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. Cyrus Kianni  
Primary Patent Examiner  
Group Art Unit 2883

April 24, 2007

A handwritten signature in black ink, appearing to be 'K. Kianni', followed by a long horizontal line extending to the right.

**K. CYRUS KIANNI  
PRIMARY PATENT EXAMINER**